

About the Salmon Creek Basin

The Salmon Creek drainage basin is currently about 1,100 acres in size (just under 2 square miles). It contains two distinct geo-regions: 1) a rolling upland of glacial till which currently contains wetlands, small lakes, and a piped drainage system, and 2) an outwash plain descending to Puget Sound which contains Salmon Creek and several tributaries. The outwash sands exposed along Salmon Creek also extend beneath the till of the upper plateau, creating a conduit for groundwater to the Creek.

Based on 1909 topographic information, much of the current Salmon Creek drainage basin historically flowed northward toward Longfellow Creek, with the old drainage divide being located between Mallard Lake (Kingston Pond) and Lake Garrett (Lake Hicks). This means the area tributary to Salmon Creek was historically much smaller, about 500 acres, which is less than half of its current size. At the turn of the century, Lake Garrett was a small closed depression, and it is likely that it only rarely, if at all, overflowed into the Salmon Creek basin. With no inflow or outflow, it is likely that the lake was marsh-like in character, perhaps even a peatland. Air photos from 1936 appear to retain the original drainage divide between Kingston Pond and Lake Garrett, but by 1959, the existing street network is largely complete (air photo coverage, White Center area). By 1970, much of the basin was already fully developed to densities matching current densities. It is likely that diversion of a portion of the Longfellow drainage basin occurred between these two dates, or sometime in the 1960s. No flow control or water quality regulations were in place at the time of basin development. The first drainage standards in King County were enacted in 1979, and they were significantly lacking by today's standards.

The use of an old sewer line, the old government line, for stormwater flows began in the late 1970's. In the 10 or so years between the time the Salmon basin was "enlarged" in the 1960's and the use of the old government line to by-pass stormwater around Salmon Creek directly to Puget Sound, local flooding and stream erosion would have intensified. Flooding in the Lake Garrett depression would have intensified as runoff from additional areas was delivered to the lake as drainage; and as impervious surfaces replaced forest and vacant grassy areas. With the pumping of excess water to control flooding around Lake Garrett, flows over and above those handled from the historical basin were delivered to Salmon Creek.

Conversion of the old government line to a stormwater conveyance line restored some of the hydrologic functions of the original drainage basin.